

May 15, 2007

Mr. Christopher M. Crane
President and CEO
AmerGen Energy Company, LLC
200 Exelon Way, KSA 3-E
Kennett Square, PA 19348

SUBJECT: THREE MILE ISLAND STATION - NRC EVALUATED EMERGENCY
PREPAREDNESS EXERCISE - INSPECTION REPORT NO.
05000289/2007502

Dear Mr. Crane:

On April 17, 2007, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection of the 2007 evaluated emergency preparedness exercise at your Three Mile Island Station (TMI). The enclosed inspection report documents the inspection results, which were discussed on April 20, 2007, with Mr. T. Dougherty, TMI Plant Manager, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

This report documents one NRC-identified finding of very low safety significance (Green). The finding was determined to involve a violation of NRC requirements. However, because of the very low safety significance and because it has been entered into your corrective action program, the NRC is treating the finding as a non-cited violation (NCV) consistent with Section VI.A.1 of the NRC Enforcement Policy. If you contest the NCV in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN.: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at Three Mile Island Station.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

James M. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket No: 50-289
License No: DPR-50

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James M. Trapp, Chief
Plant Support Branch 1
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Docket No: 50-289
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* See Previous Concurrence

cc w/encl:

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Plant Manager - TMI, Unit 1, AmerGen

Regulatory Assurance Manager - TMI, Unit 1, AmerGen

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U. S. NUCLEAR REGULATORY COMMISSION REGION I
REGION I

Docket No: 50-289

License Nos: DPR-50

Report Nos: 05000289/2007502

Licensee: AmerGen Energy Company, LLC (AmerGen)

Facility: Three Mile Island Station, Unit 1 (TMI)

Location: PO Box 480
Middletown, PA 17057

Dates: April 16-20, 2007

Inspectors: S. Barr, Senior Emergency Preparedness Inspector, Region I (Lead)
D. Silk, Senior Operations Engineer
D. Kern, TMI Senior Resident Inspector
R. Rolph, Health Physicist
R. Cureton, Emergency Preparedness Inspector (Observer)
J. Bream, Reactor Engineer (Observer)

Approved by: James M. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

Enclosure

SUMMARY OF FINDINGS

IR 05000289/2007502; 04/16/2007 - 04/20/2007; Three Mile Island Station, Unit 1; Exercise Evaluation.

This was an announced inspection conducted by five region-based inspectors and the TMI Senior Resident Inspector. One Green non-cited violation (NCV) was identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

Cornerstone: Emergency Preparedness

A. NRC-Identified and Self-Revealing Findings

Green. A Green NRC-identified non-cited violation (NCV) of 10 CFR 50.47(b)(14) and 10 CFR Part 50, Appendix E, Section IV.F.2.g, was identified for failure of the licensee's exercise critique process to identify a weakness associated with a risk significant planning standard. The licensee's critique process failed to identify that the Shift Manager made the Unusual Event classification based on an incorrect classification criteria. The licensee entered the deficiency with the exercise into their corrective action program.

This finding is greater than minor because it is associated with the Emergency Response Organization Performance attribute and affected the objective of the Emergency Preparedness Cornerstone to ensure that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. In accordance with the Emergency Preparedness Significance Determination Process, this finding is of very low safety significance because it was a successful Performance Indicator opportunity and did not affect the outcome of protecting the health and safety of the public. (Section 1EP1)

B. Licensee-Identified Findings

None

Report Details

1. REACTOR SAFETY

Cornerstone: Emergency Preparedness (EP)

1EP1 Exercise Evaluation (71114.01 - 1 Sample)

a. Inspection Scope

Prior to the exercise, an in-office review was conducted of the exercise objectives and scenario submitted to the NRC, to determine if the exercise would test major elements of the emergency plan as required by 10 CFR 50.47(b)(14). A description of the evaluation conducted by the NRC during the exercise is described below. Overall, this inspection activity represented the completion of one sample on a biennial cycle.

The exercise evaluation consisted of the following review and assessment:

- The adequacy of Three Mile Island's (TMI's) performance in the biennial full-participation exercise regarding the implementation of the risk-significant planning standards (RSPS) in 10 CFR 50.47 (b)(4), (5), (9), and (10), which are emergency classification, offsite notification, radiological assessment, and protective action recommendations, respectively.
- The overall adequacy of TMI's emergency response facilities with regard to NUREG-0696, "Functional Criteria for Emergency Response Facilities," and Emergency Plan commitments. The facilities assessed were the control room simulator, the Technical Support Center (TSC), the Operations Support Center (OSC), the Joint Information Center (JIC), and the Emergency Operations Facility (EOF).
- Other performance areas, such as, the emergency response organization's (ERO's) recognition of abnormal plant conditions, command and control, intra- and inter-facility communications, prioritization of mitigation activities, utilization of repair and field monitoring teams, interface with offsite agencies, staffing and procedure adequacy, and the overall implementation of the emergency plan and its implementing procedures.
- Past performance issues from the last NRC exercise report and TMI's drill reports to determine effectiveness of corrective actions as demonstrated during this exercise to ensure compliance with 10 CFR 50.47(b)(14).
- The post-exercise critiques to evaluate TMI's self-assessment of its ERO performance during the exercise and to ensure compliance with 10 CFR 50, Appendix E, Paragraph IV.F.2.g.

The inspectors reviewed the documents listed in Attachment 1 to this report.

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b. Findings

Introduction: The inspectors identified a Green non-cited violation associated with emergency preparedness planning standard 10 CFR 50.47(b)(14) as well as the requirements of 10 CFR Part 50, Appendix E, Paragraph IV.F.2.g, for the failure of the emergency exercise critique process to identify a weakness.

Description: 10 CFR 50.47(b)(14) requires licensees to conduct periodic exercises to evaluate emergency response capabilities and to correct deficiencies identified in those exercises. The inspectors identified a performance deficiency involving a failure of the licensee's exercise critique process to identify a weakness associated with risk significant planning standard 10 CR 50.47(b)(4), which requires the licensee to use a standard emergency classification and action level scheme. Specifically, the licensee's critique process failed to identify that the Shift Manager (SM) made the Unusual Event classification based on an incorrect classification criteria.

During the April 17, 2007, biennial exercise, the inspectors observed that the SM made the Unusual Event (UE) declaration based on the wrong Emergency Action Level (EAL) condition. The SM based the UE declaration on EAL condition 3.g.3 instead of the scenario-expected 3.g.2. Condition 3.g.3 states, "Rapid unexplained loss of RB [Reactor Building] pressure following an initial pressure increase above normal levels," indicating the loss of the primary containment barrier following an event inside the containment such as a loss of coolant accident. During the exercise there was not a rise in RB pressure and the pressure decrease was less than one pound per square inch, as observed by the inspectors. Condition 3.g.2 states, "RB isolation fails resulting in a release pathway and immediate attempts to isolate from the Control Room are NOT successful." These conditions were met during the exercise. The SM's EAL declaration of an UE was correct, providing for a successful Drill and Exercise (DEP) Performance Indicator (PI) opportunity; however, the subsequent critique conducted by the licensee organization failed to recognize the SM's use of the incorrect condition as the basis for the UE declaration, resulting in the performance deficiency.

Analysis: The inspectors determined that the failure of the licensee's critique process to identify this problem with event classification was a loss of planning standard function 10 CFR 50.47(b)(14) and was more than minor because it affected the Emergency Response Organization Performance attribute of the Emergency Preparedness Cornerstone.

The inspectors assessed the finding using Inspection Manual Chapter 0609, Appendix B, Emergency Preparedness Significance Determination Process, and determined the finding to be of very low safety significance. IMC 0609, Appendix B, Sheet 1, "Failure to Comply" and Section 4.14 of Appendix B were used to reach this determination. The finding was of very low safety significance because the SM's classification was a successful DEP PI opportunity and did not affect the outcome of protecting the health and safety of the public.

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Enforcement: 10 CFR 50.47(b)(14) states, in part, "...deficiencies identified as a result of exercises or drills are (will be) corrected."

10 CFR Part 50, Appendix E, Section IV.F.2.g, states, "All training, including exercises, shall provide for formal critiques in order to identify weak or deficient areas that need correction. Any weaknesses or deficiencies that are identified shall be corrected."

Contrary to the above, during the critique of the April 17, 2007, exercise, the licensee failed to identify an event classification weakness. Because this finding is of very low safety significance, and because it was entered into the licensee's corrective action program, this violation is being treated as an NCV, consistent with Section VI.A of the NRC Enforcement Policy: NCV 05000289/2007502-01, Failure to Identify and Critique an Event Classification Weakness.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes

a. Inspection Scope (71114.04 - 1 Sample)

Prior to this inspection, the NRC had received and acknowledged the changes made to the TMI Emergency Plan and implementing procedures. These changes were made in accordance with 10 CFR 50.54(q), and the licensee had determined the changes did not result in a decrease in effectiveness to the Plan and concluded that the changes continued to meet the requirements of 10 CFR 50.47(b) and Appendix E to 10 CFR 50. During this inspection the inspector conducted a sampling review of the changes that could potentially result in a decrease in effectiveness. This review did not constitute an approval of the changes and, as such, the changes are subject to future NRC inspection. The associated 10 CFR 50.54(q) reviews for the changes were sampled by the inspector. Also, the NRC reviewed the licensee's EAL scheme for logic and consistency. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 4. The requirements in 10 CFR 50.54(q) were used as reference criteria.

b. Findings

No findings of significance were identified.

4. **OTHER ACTIVITIES (OA)**

4OA1 Performance Indicator (PI) Verification (71151- 3 Samples)

a. Inspection Scope

The inspectors reviewed data for the TMI EP PIs which are: (1) Drill and Exercise Performance (DEP); (2) ERO Drill Participation; and (3) Alert and Notification System (ANS) Reliability. The last EP inspection at TMI was in July 2006, so the inspectors reviewed supporting documentation from drills and tests from the third and fourth quarters of 2006 and the first quarter of 2007, to verify the accuracy of the reported PI

Enclosure

data. The review of these performance indicators was conducted in accordance with NRC Inspection Procedure 71151. The acceptance criteria used for the review were 10 CFR 50.9 and NEI 99-02, Revision 4, "Regulatory Assessment Performance Indicator Guidelines." This inspection activity represented the completion of three samples on an annual cycle.

b. Findings

No findings of significance were identified.

40A6 Meetings, including Exit

On April 20, 2007, the inspectors presented the inspection results to Mr. T. Dougherty, TMI Plant Manager, and other members of the licensee's staff. No proprietary information was provided to the inspectors during this inspection.

ATTACHMENT

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

D. Neff, TMI Emergency Preparedness Manager
H. Langley, TMI Emergency Preparedness Coordinator
J. Karkoska, Exelon MidAtlantic Emergency Preparedness Manager

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened

05000289/2007502-01	NCV	Failure to adequately critique and identify a performance problem associated with the process of event classification.
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LIST OF DOCUMENTS REVIEWED

Section 1EP1: Exercise Evaluation

Three Mile Island Station, Unit 1 Emergency Plan
Three Mile Island Station, Unit 1 Emergency Plan Implementing Procedures
2007 Graded Exercise Timeline, Scenario Messages, and Radiation Release Data
All EP Drill Reports generated since April 2005

Incident Reports (IR's) reviewed as a result of the 2007 evaluated exercise:

IR 00618521	IR 00619442
IR 00618740	IR 00619445
IR 00618916	IR 00619449
IR 00618918	IR 00619453
IR 00619124	IR 00619454
IR 00619135	IR 00619455
IR 00619137	IR 00619458
IR 00619287	IR 00619459
IR 00619310	IR 00619460
IR 00619313	IR 00619461
IR 00619362	IR 00619547
IR 00619383	IR 00619556
IR 00619398	IR 00619566

Section 1EP4: Emergency Action Level an Emergency Plan Changes

LS-AA-104, Exelon 50.59 Review Process, Rev. 5
LS-AA-104-1000, Exelon 50.59 Resource Manual, Rev. 3
LS-AA-104-1006, Exelon 50.59 Training and Qualification, Rev. 2

All Emergency Plan and Emergency Plan Implementing Procedure changes processed between January 2006 and March 2007.

Section 4OA1: Performance Indicator Verification

Drill/Exercise Performance Indicator Data, July 2006 - March 2007
ERO Drill Participation Performance Indicator Data, July 2006 - March 2007
ANS Reliability Performance Indicator Data, July 2006 - March 2007

LIST OF ACRONYMS

ANS	Alert and Notification System
CFR	Code of Federal Regulations
DEP	Drill and Exercise Performance
ERO	Emergency Response Organization
EOF	Emergency Operations Facility
EP	Emergency Preparedness
ERO	Emergency Response Organization
IR	Incident Report
NRC	Nuclear Regulatory Commission
OSC	Operations Support Center
PI	Performance Indicator
RSPS	Risk Significant Planning Standard
TSC	Technical Support Center